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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/089,425

07/29/2002

Stefan Eder

Mic.6688

7277

7590

12/22/2004

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EXAMINER

VU, BAO Q

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/089,425

Applicant(s)

EDER, STEFAN

Examiner

Bao Q. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8-19-04.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In view of the Appeal Brief filed on 8-19-04, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite in that they claim an

electrically isolated voltage regulating circuit and switching circuit. How can they be electrically isolated when the voltage regulator is providing power to the switching regulator? Electrical isolation is usually accomplished through a transformer (circuitry on primary side and another circuit on the secondary) or an opto-coupling circuit.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Shimoda (USP 5,216,351). Shimoda (see figure 1) discloses a voltage regulating 10, a switching circuit 11, to provide a regulated output (Vout) all of which is integrated on a single substrate.

7. Claim 8 and 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Barlage (USP 5,168,436). Barlage (see figure 1) discloses a power supply 14; a voltage regulator 20, receiving the power, and then providing the regulated power to the switching power supply 18. Barlage clearly shows an internal connection that provides regulated voltage signal from the voltage regulator to the switching circuit.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoda (USP 5,216,351) in view of Barlage (USP 5,168,436). Shimoda discloses the claimed invention (see paragraph 7) except for a voltage regulator circuit that supplies power to a switching regulator circuit. Barlage discloses that it is known in the art to provide a voltage regulator circuit that supplies power to a switching regulator circuit to provide a more stable voltage to the switching power supply. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide the voltage regulator circuit that supplies power to a switching regulator circuit of Barlage with the cascaded switching and series regulators of Shimoda, in order to provide a more stabilized and controlled voltage to the switching regulator thereby adding to the efficiency of the circuit.

10. Claim 7 (dependent on claims 1, 2, 3) is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoda (USP 5,216,351) in view of Barlage (USP 5,168,436). Shimoda and Barlage discloses the claimed invention except for the switching circuit being used in telecommunications and is controllable via a data bus. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a switching circuit being used in telecommunications and is controllable via a

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data bus since the examiner takes Official Notice of the equivalence of any type of controller for the control of the switching circuit and switching circuit being used in telecommunications and is controllable via a data bus for their use in the switching controller art and the selection of any of these known equivalents to control a switching circuit would be within the level of ordinary skill in the art.

11. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoda (USP 5,216,351) in view of Barlage (USP 5,168,436). Shimoda and Barlage disclose the claimed invention except for the use of an external connection at the exterior of the integrated circuit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the use of an external connection at the exterior of the integrated circuit since it was known in the art that any type of external connection are well know in the art and is used to provides an output voltage usually to a load circuit.

12. Claim 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoda (USP 5,216,351) in view of Barlage (USP 5,168,436) and further in view of Hattori et al. (USP 6,225,676). Shimoda and Barlage disclose the claimed device except for having an electrical insulator to electrically isolate the voltage regulating circuit from the switching circuit. Hattori discloses that it is known in the art to provide an electrical insulator to electrically isolate the voltage regulating circuit from the switching circuit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an electrical insulator to electrically isolate the voltage regulating circuit from the switching circuit of Hattori with the integrated

circuit that has a voltage regulator that provides a regulated voltage to a switching circuit of Shimoda and Barlage, in order to have circuits that are not effected by electrical noise and provide a less distorted signals for the operations of the electrical circuits.

13. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoda (USP 5,216,351) in view of Barlage (USP 5,168,436) and further in view of Hattori et al. (USP 6,225,676). Shimoda and Barlage disclose the claimed invention except for the use of an external connection at the exterior of the integrated circuit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the use of an external connection at the exterior of the integrated circuit since it was known in the art that any type of external connection are well know in the art and is used to provides an output voltage usually to a load circuit.

14. Claim 7 (dependent on claims 4, 5, 6) is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoda (USP 5,216,351) in view of Barlage (USP 5,168,436) and further in view of Hattori et al. (USP 6,225,676). Shimoda, Barlage and Hattori disclose the claimed invention except for the switching circuit being used in telecommunications and is controllable via a data bus. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a switching circuit being used in telecommunications and is controllable via a data bus since the examiner takes Official Notice of the equivalence of any type of controller for the control of the switching circuit and switching circuit being used in telecommunications and is controllable via a data bus for their use in the switching

controller art and the selection of any of these known equivalents to control a switching circuit would be within the level of ordinary skill in the art.

### ***Conclusion***

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q. Vu whose telephone number is (571) 272-2088. The examiner can normally be reached on Monday-Fridays, 8:00AM- 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bao Q. Vu  
Primary Examiner  
Art Unit 2838

December 18, 2004